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INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

REPORT AND RECOMMENDATION

OF THE

PRESIDENT

TO THE

EXECUTIVE DIRECTORS

ON A

PROPOSED LOAN

TO THE

REPUBLIC OF KOREA

FOR A

HIGHWAY PROJECT

June 9, 1971

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

REPORT AND RECOMMENDATION OF THE PRESIDENT
TO THE EXECUTIVE DIRECTORS ON A PROPOSED LOAN TO
THE REPUBLIC OF KOREA FOR A HIGHWAY PROJECT

1. I submit the following report and recommendation on a proposed loan to the Republic of Korea for the equivalent of US\$54.5 million, with interest at 7 $\frac{1}{4}$ % per annum and repayable in 24 years including a four year period of grace. The loan would help finance the construction of national highways; feasibility studies and detailed engineering; a highway maintenance study; and the purchase of equipment and spare parts for a pilot highway maintenance organization. The loan would also re-finance a \$3.5 million IDA technical assistance credit made in 1968.

PART I - BANK GROUP OPERATIONS

2. Korea has received six IDA credits totalling \$65 million and five Bank loans amounting to \$140 million. The largest share of Bank Group financing, \$83.2 million, has gone to the transport sector, practically all of it for the railways. The proposed highway loan would increase the Bank Group's financing of this sector to \$134.2 million, with \$79.7 million for railways and \$54.5 million for highways. The Korea Development Finance Corporation (KDFC) has received \$55 million in Bank loans for relending to private industrial enterprises. Two operations in the agricultural sector and one credit for education make up the balance of Bank Group lending to Korea.

3. Of the total Bank Group lending of \$205 million, \$158.9 million remained undisbursed as of May 31, 1971. This relatively large amount is accounted for, in part, by two large loans made within the past year and, in part, by delays in implementing a \$45 million irrigation loan and a \$14.8 million education credit. It took longer than expected for the Borrower to engage consultants for the irrigation project, and the original Borrower was succeeded by a new organization about whose competence the Bank had to satisfy itself. Several major contracts have now been awarded and disbursements to cover civil works and equipment expenditures can be expected to pick up within the next few months. The appointment of consultants for the education project was delayed, holding up design work; however, the project is now under way and disbursements are expected to start in the near future.

4. During the next fiscal year, I expect to recommend Bank loans for a fifth railway and a second irrigation project, and an IDA credit for an agricultural credit project. These two agricultural projects will increase our contribution to the agricultural sector which, as explained in Part II, requires heavy additional investments.

5. IFC has made three investments in Korea and its holdings amount to \$7.4 million in loans and shares. IFC is presently considering an investment in the shares of the Korea Investment and Finance Corporation, a new financial institution which will assist the development of the capital and money markets in Korea. Further investment possibilities are being investigated by IFC. A statement of Bank loans, IDA credits and IFC investments is given in Annex I.

PART II - THE ECONOMY

6. A report entitled "Economic Position and Prospects of the Republic of Korea" (EAP-12a, dated March 16, 1970) was circulated to the Executive Directors on March 27, 1970. Basic data on the country is given in Annex II. An economic mission will leave for Korea in a few days to review the forthcoming Third Five-Year Plan, 1972-76, and to prepare an economic report which will be considered by the Consultative Group in October 1971. The first formal meeting of the Consultative Group was held in Paris in 1966 and there have been regular meetings since that date, usually once a year.

7. Stable political conditions and a commitment to development have provided a climate favorable to economic progress. Ethnic and religious differences are largely absent from the Korean social scene, thus conserving the remarkable energy of the people for a single-minded national effort to improve their standard of living. The Government has recently won renewed support; in April, President Chung Hee Park was elected to a third four-year term as President, and in May the President's Democratic Republican Party won a majority in the National Assembly.

8. Rapid economic growth, with strong emphasis on industrialization and exports, has been a basic objective of the Government's policy. This objective has been effectively fostered by Government policies of active encouragement of private business, and by a well-educated, disciplined and low-wage labor force. Agricultural production has advanced at the fairly satisfactory rate of 3% or 4% a year but farm income has not kept pace because of the lag of farm prices. GNP increased in real terms by 11% a year during 1965-70, while GNP per capita rose by almost 9% a year to reach US\$223 in 1970. Exports rose from a low base in 1965 at an average annual rate of about 40%.

9. The population growth rate, restrained by an active official family planning program, declined from an average 2.8% a year in the first half of the decade to 2.2% in 1970. The economically active population increased at 2% a year during 1965-69 while employment increased at 2.6% a year. Thus, Korea has been able to expand its employment opportunities sufficiently to absorb the increase in the labor force and, at the same time, reduce the level of unemployment from about 7.4% in

1965 to 4.8% in 1969. Since 1963 the average income of urban workers has increased by about 60%. However, in agriculture slower growth and adverse domestic terms of trade meant a virtual stagnation of farm income.

10. While exports have been rising rapidly, both the expansion of investment demand at a rate greatly in excess of the rate of increase in domestic savings, and the low domestic content of industrial production, have caused an equally rapid increase in imports. Consequently, the foreign deficit on goods and services increased steadily from \$194 million in 1965 to \$794 million in 1969. The external gap was filled by an inflow of foreign capital, with a consequent rapid increase in debt servicing obligations.

11. Rapid income growth has also led to rising prices and wages. During 1965-69 the Seoul consumer price index rose by 11.5% a year while the money wage of workers in the manufacturing sector increased by 24% a year. Wholesale prices in this period increased by about 23% in relation to external prices, whereas the exchange rate depreciated by only 10%. In these circumstances, export growth has relied increasingly on various incentives provided by the Government, such as tax privileges, concessional interest rates, tariff exemptions on imported inputs, and the privilege of importing controlled items.

12. Thus, Korea's outstanding economic performance in terms of growth has been achieved at the cost of moderate, but continuous inflation, a persistent balance of payments deficit and heavy external indebtedness. Realizing the importance of keeping the external debt burden within manageable limits and of containing inflation, the Government, in late 1969, adopted a set of monetary and fiscal stabilization measures in agreement with the IMF designed to limit the growth of private consumption, curb credit expansion and cut down the growth of imports and foreign borrowing.

13. The stabilization program had significant effects on the economy in 1970, the most important being the fall in investment and foreign borrowing and the slowdown in import growth. Fixed capital formation at constant prices fell by almost 2% and GNP at constant prices rose by 9.7%, compared with 15.9% in 1969. Imports of goods and services increased by only 10% in 1970, as compared with 25% in 1969. Exports jumped by 34%, although part of this was offset by lower service receipts, so that the increase in the receipts from goods and services was 19% in 1970. As a result, the deficit on goods and services account was reduced slightly from \$794 million in 1969 to \$779 million in 1970. External debt of more than one year maturity incurred in 1970 amounted to \$554 million, which was considerably less than the \$916 million in 1969.

14. Despite the considerable efforts by the Government, however, the stabilization policies have not been sufficient to restore internal financial stability or to ensure a more than temporary respite from the mounting requirements of external finance. Private consumption still rose by 11% in 1970, over 10% faster than GNP, and the price level went up by at least as much as in 1969. The stabilization program has only temporarily eased the pressures on the country's external position. At the end of 1970, Korea's total external debt amounted to about \$2 billion and the debt service ratio exceeded 20% (11% in 1969). The pressures are likely to persist, for Korea's economy has become geared to a high rate of growth which cannot be slowed down abruptly without export and employment difficulties and other severe dislocation.

15. At the last two meetings of the Consultative Group attention was drawn to this problem, and during 1971 the Government plans to continue its emphasis on export expansion while limiting increases in external debt. The Government has set target increases of 10% for real GNP and less than 3% for gross investment. The Central Government's expenditure for 1971 is budgeted to increase by about 18%, with some of the increase allocated to defense in view of the reduction of U.S. forces in Korea. Because of the uncertainties in world markets and developments in Vietnam, the rate of increase in exports of goods and services is expected to slow down. The Government has recently agreed to limitations on new external debt and domestic credit expansion in the IMF Standby Agreement for 1971.

16. The Korean planning authorities' growth objective for the Third Five-Year Plan (1972-76) is 8.6% a year, a reduction from the 11% achieved in 1965-70. During the Plan period, particular attention will be given to the development of agriculture and the capital goods industry. The Government will continue to give high priority to the rapid expansion of merchandise exports which, together with a sharp reduction in the growth of imports, is expected to contribute to a substantial improvement in Korea's balance of payments position without leading to an increase in unemployment.

17. The projected growth rate seems likely to require a larger investment outlay than allowed for in Korean plans. Thus, Korea's requirements for external capital will continue to be high even if policies of restraint are pursued. The reasons for this are the high level of debt service that has already been reached, the wide gap that remains between savings and investment even after the impressive gains in savings to a level of 16% of GNP in 1970 (and the plan target of 21% by 1976), and the expected deterioration in the service account of Korea's balance of payments due to withdrawals of U.S. forces from Korea and Korean forces from Vietnam.

18. Nevertheless, Korean capabilities for economic growth generally, and for export expansion in particular, should not be underrated, considering the record of rapid development and effective economic management in recent years. It seems reasonable to expect Korea to continue

on its course of rapid economic development, and it can be considered creditworthy for further Bank loans. At the same time, considering Korea's low level of per capita income and heavy dependence on foreign capital, some of the assistance from the Bank Group should continue to be on IDA terms.

19. The number of high priority projects in the public sector having a substantial foreign exchange element is relatively limited. Many of the projects with a large foreign exchange component are in the private industrial sector, and are financed from private sources and export credit agencies. The Bank Group's financing is going increasingly into infrastructure, agriculture and education projects which are of high priority but often have a low foreign exchange component. In these circumstances, I consider the financing by the Bank Group of some local expenditures appropriate.

PART III - THE PROJECT

The Transport Sector

20. The Bank Group's lending to this sector has focused on both the physical and operational needs of both the railways and highways. When the Bank Group began lending to Korea in 1962, the transport sector was in serious need of capital investment to enable it to service the economy which was beginning to grow after years of war and serious inflation. There were very few paved roads, and the railroad was handicapped by poor management and antiquated rolling stock and motive power. The 1962 railways credit provided urgently needed freight and passenger cars. Two subsequent lending operations were designed to make the Korean National Railroad (KNR) more responsive to greatly increased demands imposed by a rapidly industrializing economy. Besides financing additional rolling stock, the projects included a variety of consultant's services to strengthen management and introduce a modern system of operations analysis.

21. The rapid expansion in income, production and trade has put a severe strain on the transport system. To meet the growing demand for services, investments in the transport sector, mostly by the Government, increased from \$65 million in 1965 to \$400 million in 1969, the latter figure representing about 28% of total capital formation.

22. Domestic passenger and freight traffic by all modes of transport increased between 1965 and 1969 at an average annual rate of about 17%. Until recently, the principal method of transport has been the railroad, which has become a generally efficient organization with an extensive network of lines connecting all the major population centers in the country. However, an intensive road-building campaign started in 1968 and road transport, which has been the major passenger carrier

since 1965, has been gaining in importance as a freight carrier. There has also been a rise in the amount of freight carried by coastal shipping. Although the share of the total amount of freight carried by the railroad is slowly declining, the ton-km of freight carried by the KNR increased by 5.2% in 1970 over 1969. Passenger traffic, on the other hand, decreased by about 12% over the same period as the recently opened Seoul-Pusan expressway continued to lure travellers away from the railroad.

23. The national highways come under the authority of the Minister of Construction, while provincial and local roads are under the respective local authorities. The country has two four-lane, divided, expressways: one covering the forty km from Seoul to the northern port of Inchon, and the other cutting diagonally across the country from Seoul to Pusan. However, apart from the expressways and a few stretches of paved highways which have been constructed recently, most of the roads are badly aligned, narrow, poorly drained, and either roughly surfaced with gravel or unsurfaced.

24. In 1965 the Bank financed, as a grant, a transportation survey in Korea which was carried out by a joint venture of consultants from France and the Netherlands. The report, completed at the end of 1966, drew attention to the lack of adequate roads and recommended that the Government emphasize road improvement in its development programs. The report also stressed the need for carrying out major changes in highway administration, planning, construction and maintenance. Finally, the report called for the setting up of an organization to coordinate transportation policy, which was not receiving serious attention. In 1968 the Association made a credit of \$3.5 million to finance highway organization and transport coordination studies, together with feasibility studies and detailed engineering of selected highways. As a result of these studies, carried out by consultants from France, the Netherlands and the United States, a transport coordination mechanism has been set up and the responsibilities and operational efficiency of the Bureau of Public Roads for planning was greatly improved, but only limited progress has yet been made in improving road maintenance.

25. The expansion of domestic and foreign trade has resulted in increasing demands on ocean and coastal shipping, which cannot be fully met because of lack of vessels and inadequate port facilities. In 1969, coastal shipping handled 20% of the country's freight traffic. The Ministry of Construction is responsible for planning, constructing and maintaining sixteen first class and twenty-four second class ports. Revenues from port charges are not presently sufficient to cover expenditures for investment, maintenance and other services. The lack of adequate central coordination of port development has led to a limited amount of funds being spread over a large number of ports which, combined with a concentration of economic activities around the ports of Pusan and Inchon, has led to considerable overcrowding of those two ports. Expected further increases in the demand for shipping services will require a comprehensive port development program for the entire

country shaped to fit the projected traffic pattern. A UNDP-financed survey, for which the Bank is the Executing Agency, is now under way to develop a master plan for port development and to identify high priority projects for possible Bank financing; this survey is expected to be completed before the end of 1972.

26. Air traffic plays a minor role in the transport sector. The privately-owned Korea Air Lines provides domestic and limited international flights. Less than one percent of domestic travellers went by air in 1969 and air freight, while expanding, is still insignificant.

The Project

27. The project consists of road construction, feasibility studies, detailed engineering, a highway maintenance study and the purchase of maintenance equipment.

28. As can be seen on the attached map, the road to be constructed links the major cities of Chonju, Kwangju, Sunchon, Chinju, Masan and Pusan. The existing road from Chonju to Masan is narrow, poorly aligned, badly drained, and has a rough gravel surface, except for short paved sections near Sunchon and Masan. The Masan-Pusan section is paved, but is narrow and becoming increasingly congested. The new highway will be built on a new alignment and will have a two-lane asphaltic concrete pavement. It will be 56 km shorter than the existing road. The Masan-Pusan alignment was chosen to connect with an intra-urban link in Pusan to be financed and built by the Government. Construction supervision will be carried out by consultants acceptable to the Bank.

29. Feasibility studies, by consultants acceptable to the Bank, of the possible improvement or reconstruction of about 1,400 km of national highways are included in the project. If found justified, detailed engineering will be done on about 900 km of the highest priority roads, and these could form the basis for future lending operations. Detailed engineering will also be carried out on 100 km of highways from Wonju to Kangnung in the northern part of the country, and on 100 km of highways from Mukho to Sokcho along the north-eastern coast, for which feasibility studies have been carried out under the 1968 technical assistance credit. These, too, could be incorporated in a future project.

30. The project includes a study, by consultants acceptable to the Bank, of the organization of highway maintenance and methods of carrying it out. This study will include: preparation of a detailed program for the reorganization of highway maintenance, including setting up a new field organization of the Ministry of Construction (MOC) for maintaining national highways; preparation of a five-year maintenance program; assessment of mechanical equipment needs for highway maintenance; and assessment of capital and recurrent financial requirements for implementing the reorganization and carrying out the maintenance program. The UNDP was approached to finance these studies, but was unable to do

so because of existing and planned technical assistance activities in Korea. The project also includes procurement of equipment and spare parts to assist the Government in setting up a new MOC field maintenance organization in a pilot province.

31. Of the highway feasibility and transport coordination studies for which an IDA technical assistance credit was made in 1968 (S-4 KO), a small part remains to be completed. The proposed loan would finance the cost of the uncompleted part and, at the time the loan becomes effective, the small undisbursed amount of the 1968 credit would be cancelled. The proposed loan would also provide funds to reimburse the Association for the amounts already withdrawn (about \$3.2 million) under the credit for these studies.

Cost of the Project and Amount of Loan

32. Aside from providing the \$3.5 million required to finance the studies referred to in paragraph 31, the proposed loan would contribute \$51 million toward the new project. This would cover about half of the project costs, estimated at \$102.5 million as shown in detail in Annex III. The Government will meet the other half of project costs from the national budget. The foreign exchange component of the project has been tentatively estimated at \$45 million based on the assumption that foreign construction firms will win 25% of the contracts; the proposed loan would, therefore, involve local currency financing of \$6 million. Since Korea has a competitive and well-organized construction industry, it is conceivable that local firms might win all of the construction contracts; in that event the foreign component of the project would be \$43 million and the proposed loan would finance \$8 million of local costs. At the other extreme, if foreign firms were to win all of the construction contracts, the foreign component of the project would be \$53.5 million and the Government would need to provide \$2.5 million in foreign exchange.

Procurement

33. Procurement of equipment and spare parts for maintenance will be on the basis of international competitive bidding. The Koreans manufacture dump trucks and other road vehicles, which have a substantial local value-added component, and may possibly win contracts amounting to about \$200,000 for such equipment. If so, the Bank would finance 90% of the total costs, the other 10% being estimated local taxes which are not eligible costs under the project. Korean manufacturers of maintenance equipment will be given a 15% preference or the prevailing customs duties, whichever is less, in the evaluation of bids. Highway construction will be carried out on the basis of contracts awarded after international competition. Seventeen construction firms have already been prequalified, of which three are foreign; invitations to bid are expected to be issued shortly. Right-of-way will be acquired

by the Government for each contract section before awarding the construction contract. Consultants for the various studies will be selected by the Borrower with the concurrence of the Bank.

Implementing Agency

34. The project will be implemented by the Bureau of Public Roads (BPR), which is part of the Ministry of Construction. The Ministry has had considerable experience in civil works construction of all kinds, and recently the BPR headquarters has been reorganized, in accordance with consultants' recommendations under the 1968 credit, into separate divisions dealing with planning, administration, finance, construction and maintenance. With the help of consultants the BPR should have no difficulty in carrying out the project.

35. The BPR is responsible for drafting highway five-year development programs, annual budgets, design and supervision of all roads financed by the Government, and it gives technical guidance on highway matters to the provinces. Maintenance is the weakest aspect of the highway system, as responsibility for this is diffused through several agencies at the national, provincial county and city levels. Under the conditions of the proposed loan, a country-wide field maintenance organization under the direct responsibility of the BPR will be set up according to an agreed timetable.

Economic Evaluation

36. The economic rate of return on the highway construction is estimated at 28%, ranging from 22% on the less travelled sections of the highway to 32% on the heavily travelled sections. Reductions in vehicle operating costs and passenger time costs, due to improved running surfaces, improved alignment, and considerable route shortenings, are the readily quantifiable benefits used in the economic evaluation. Benefits from a reduction in accidents, and increased operating costs which would occur if the project were not carried out, are not included in the calculation. Sensitivity analyses, assuming realistic increases in construction costs and lower traffic growth, show rates of return which would still be acceptable.

PART IV - LEGAL INSTRUMENTS AND AUTHORITY

37. The draft Loan Agreement between the Bank and the Republic of Korea, the Report of the Committee provided for in Article III, Section 4(iii) of the Articles of Agreement and the text of a Resolution approving the proposed loan are being distributed to the Executive Directors separately. The draft Loan Agreement follows the general pattern of other loan agreements relating to highway projects.

38. I am satisfied that the proposed loan would comply with the Articles of Agreement of the Bank.

PART V - RECOMMENDATION

39. I recommend that the Executive Directors approve the proposed loan.

Attachments

Robert S. McNamara
President

June 9, 1971

REPUBLIC OF KOREA

SUMMARY STATEMENT OF LOANS, CREDITS AND IFC INVESTMENTS

(as of May 31, 1971)

LOANS AND CREDITS:

Loan or Credit No.	Year	Borrower	Purpose	Amount (U.S. \$ million)		
				Bank	IDA	Undisbursed
25	1962	Republic of Korea	Railway	14.0	-	-
110	1967	Republic of Korea	Railway	10.7	-	-
529	1968	KDFC	Dev. Fin. Co.	5.0	0.1	0.1
S-4	1968	Republic of Korea	Highway Studies	3.5	0.6	0.6
600	1969	ADC	Irrigation	45.0	43.8	43.8
151	1969	Republic of Korea	Education	14.8	14.6	14.6
622	1969	KDFC	Dev. Fin. Co.	20.0	11.5	11.5
669	1970	Republic of Korea	Railway	40.0	37.0	37.0
183	1970	Republic of Korea	Railway	15.0	14.3	14.3
234 ^{1/}	1971	Republic of Korea	Livestock	7.0	7.0	7.0
735 ^{1/}	1971	KDFC	Dev. Fin. Co.	30.0	30.0	30.0
Total (less cancellations)				140.0	65.0	158.9
of which has been repaid				0.1		
Total now outstanding				139.9		
Amount sold				0.8		
of which has been repaid				-	0.8	
Total now held by Bank and IDA				139.1	65.0	
Total undisbursed				122.4	36.5	158.9

IFC INVESTMENTS:

		U.S. \$ million	
		Loans	Shares
1968	KDFC (Development Bank)	-	0.7
1969	Honam Silk Company	1.4	0.3
1970	Atlas Paper Company	4.5	0.5
Total		5.9	1.5

^{1/} Not yet effective

REPUBLIC OF KOREA

COUNTRY DATA

<u>Area</u>	98,438 sq. km.		
<u>Population</u> (mid year 1970)	31.79 million		
Growth Rate (1970)	2.2% ^{a/}		
Density (per sq. km.)	323		
<u>Gross National Product</u>			
Total (1970 at current prices)	2,562 billion won		
Annual average real rate of growth (1965-70)	11.3%		
Per Capita GNP (1970)	\$223 equivalent		
<u>Industrial Origin of Real GNP (1970)</u>	100%		
Agriculture, Forestry and Fisheries	26%		
Mining and Manufacturing	28%		
Economic Overhead and Construction	13%		
Other Services	33%		
(Wholesale and Retail Trade)	(17%)		
<u>Gross Domestic Expenditure</u>			
(current prices: as percentage of GDP)	<u>1965</u>	<u>1969</u>	<u>1970</u>
<u>Consumption</u>	94	84	84
Private	84	73	73
Public	10	11	11
<u>Gross Capital Formation</u>	14.8	30.4	26.6
<u>Gross Domestic Saving</u>	8.2	19.1	16.3
Private	(6.4)	(12.7)	n.a.
Public	(1.8)	(6.4)	n.a.
<u>Resource Gap</u>	6.6	11.3	9.9
<u>Public Finance</u>			
(current prices, in billion won)			
Current Revenue	91	370	n.a.
Current Expenditure	81	248	n.a.
Surplus	10	122	n.a.
Capital Expenditure	41	231	n.a.
Receipts from Counterpart Funds	33	17	n.a.

^{a/} This figure has not been adjusted by the result of the 1970 census, which shows an average annual growth rate of 1.9% between 1966 and 1970.

	<u>1965</u>	<u>1969</u>	<u>1970</u>
<u>Money and Credit</u> (annual rate of change in percent)			
Money Supply	33	46	41
Time and Saving Deposits	112	77	27
Total Bank Credit Outstanding	42	60	32
<u>Price Indices (percent increase)</u>			
Consumer Prices (Seoul)	13.6	10.1	12.7
Wholesale Prices	10.0	6.8	9.1
<u>Balance of Payments (in million US\$)</u>			
Merchandise Exports (f.o.b.)	175	658	882
Merchandise Imports (f.o.b.)	<u>416</u>	<u>1,650</u>	<u>1,761</u>
Deficit	-241	-992	-879
Receipts from Military Expenditures	74	249	232
Other Services, net	<u>- 27</u>	<u>- 51</u>	<u>-132</u>
Balance on Goods & Service Account	<u>-194</u>	<u>-794</u>	<u>-779</u>
<u>International Liquidity (in million US\$)</u>			
Gross Foreign Exchange Reserves	146	550	606
Month's Imports of Goods & Services	4	3	3
IMF Quota	18.8	50	50
IMF Drawings (outstanding)	-	12.5	12.5
<u>Net Inflow of Foreign Capital (in million US\$)</u>			
Grants	203	244	178
Loans	-3	634	498
Direct Investment	<u>-</u>	<u>16</u>	<u>65</u>
Total	<u>200</u>	<u>894</u>	<u>741</u>

External Debt

Total outstanding external debt (disbursed) with maturity of over one year at the end of 1970: \$1,982 million.

Amortization and interest payments on these debts during 1970 were estimated at \$321 million, or 23.4% of export earnings.

Exchange Rate (end December 1970). Banks' selling rate: 317 won to \$

<u>Social Indicators</u>	<u>1960</u>	<u>1965</u>	<u>1970 a/</u>	<u>1975 a/</u>
Population growth rate (%)	2.88	2.70	2.04	1.60
Urban population growth rate (% average for preceding 5 years)	5.8	5.8	5.0	4.6
Birth rate (per 1,000 population)	42.0	37.4	28.0	22.3
Family planning (1,000 acceptors)	-	430	775	900
School enrollment, primary (%)	84	87	97	n.a.
Literacy rate (%)	71	85	90	n.a.
Unemployment rate (%)	8.4	7.4	5.0	n.a.
Population per hospital bed	2,510	2,520	2,000	1,606

a/ 1970 data are preliminary estimates, 1975 data are Bank estimates.

KOREA HIGHWAY PROJECT
LOAN AND PROJECT SUMMARY

I. LOAN SUMMARY

Borrower: Republic of Korea

Amount: In various currencies equivalent to \$54.5 million

Amortization: In twenty-four years including a four year period of grace, through semi-annual installments beginning December 15, 1975 and ending June 15, 1995.

Interest Rate: 7 $\frac{1}{4}$ % per annum

Commitment Charge: 3/4 of 1% per annum

II. SECTOR DATA

Public Highways:

Expressways	470 km
National highways	8,120 km
Provincial highways	10,820 km
Special city roads	2,740 km
City and county roads	<u>15,020 km</u>
Total	<u>37,170 km</u>

Type of Surface:

Paved	3,120 km
Graveled	30,420 km
Unsurfaced	3,630 km

Motor Vehicle Statistics:

	<u>1962</u>	<u>1965</u>	<u>1970</u>
Cars	8,733	13,001	56,254
Trucks	13,093	16,015	45,720
Buses	6,747	9,316	14,831
Others	<u>2,241</u>	<u>3,179</u>	<u>3,519</u>
Total	<u>30,814</u>	<u>41,511</u>	<u>120,324</u>

Traffic Data:

	<u>1969 Ton-km</u>	<u>1969 Pass-km</u>
Railroad	7,328 (68.2%)	11,077 (39.3%)
Highway	1,307 (12.1%)	16,688 (59.2%)
Coastal shipping	2,107 (19.7%)	257 (0.9%)

III. PROJECT DATADescription of
the Project:

The construction of 372 km of national highway from Chonju in the south western part of the country south to Kwanju then east to Suncheon, Chinju and Masan to Pusan, the major port; feasibility studies of about 1,400 km of national highways, detailed engineering of about 1,100 km of national highways; a highway maintenance study; and purchases of highway maintenance equipment.

Design Standards:

Two-lane asphaltic concrete pavement; speeds from 70 km/h in hilly terrain to 120 km/h in flat terrain.

Cost Estimates:

		(U.S. \$ million)		
		Local	Foreign	Total
A. Highway Construction		43.4	29.0 ^{1/}	72.4
B. Consulting Services		5.1	8.2	13.3
C. Equipment and Spare Parts		-	0.9	0.9
D. Contingency Allowance		9.0	6.9	15.9
Sub-total		57.5	45.0	102.5
E. Completion of 1968 Credit		-	0.3	0.3
F. Credit Refunding		-	3.2	3.2
Total		57.5	48.5	106.0

Allocation of
Loan:

Construction	\$34,200,000
Consultants' Services	8,200,000
Equipment	900,000
Unallocated	7,700,000
Sub-total	\$51,000,000
Completion of 1968 Credit	300,000
Credit Refunding	3,200,000
Total	\$54,500,000

Construction
Period:

1971-1975

^{1/} Based on the assumption that foreign construction firms will win 25% of the contracts.

<u>Estimated</u> <u>Disbursements:</u>	<u>Fiscal Year</u>	<u>Amounts (U.S.\$ million)</u>
	1972	7.7
	1973	13.8
	1974	22.3
	1975	10.7
 <u>Economic Rate</u> <u>of Return:</u>	 28%	

REPUBLIC OF KOREA
NATIONAL HIGHWAY NETWORK

